Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue ● Indianapolis, IN 46204
(800) 451-6027 ● (317) 232-8603 ● www.idem.IN.gov

Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

June 14, 2019

Via Email to: tlsullivan@uss.com
Mr. Tim Sullivan, Compliance Manager
US Steel, Midwest Plant
6300 US Highway 12
Portage, Indiana 46368

Dear Mr. Sullivan:

Re: **Inspection Summary/ Enforcement Referral**
US Steel Corporation Midwest Plant
NPDES Permit No. IN0000337
Portage, Porter County

An inspection of the above-referenced facility or location was conducted by a representative of the Indiana Department of Environmental Management, Northwest Regional Office, pursuant to IC 13-18-3-9. A summary of the inspection is provided below:

Date(s) of Inspection:	May 09, 2019 , May 10, 2019 , May 14, 2019 , May 15, 2019 , May 16, 2019 , May 30, 2019
Type of Inspection:	Reconnaissance Inspection
Inspection Results:	Violations were observed and will be referred to the Enforcement Section.

The following concerns were noted:

On May 9, 2019, at 9:48 AM CST, Mr. Ream received a telephone call from Mr. Tim Sullivan, the Compliance Manager with US Steel - Midwest, stating that the effluent from Outfall 004 was discolored and a thin sheen was present in the receiving stream. At the time of the telephone call, US Steel personnel stated that they believed the problem was due to pickle liquor, which was released from Heat Exchanger #1 of Pickling Line #1 to the Final Wastewater Treatment Plant. Prior to entering the facility, Mr. David Greinke and Mr. Ream viewed Outfalls 002, 003, and 004 from the west side of Burns Waterway. No problems were observed at Outfalls 002 and 003. The Outfall 004 discharge appeared turbid and discolored and contained a visible sheen.

After entering the facility, Mr. Greinke and Mr. Ream met with Mr. Mark Henry and Mr. Tim Sullivan. Mr. Greinke recommended the placement of an oil absorbent boom to capture the sheen in Burns Waterway. Orange solids were overflowing the weirs of the east treatment train of the Final Treatment WWTP. The west treatment train was off-line for routine maintenance. When asked why the west train was not brought on-line due to the loss of solids, Mr. Henry stated that a thick layer of oil and grease was being cleaned from the off-line train and he had concerns that starting the train would result in washing

oil and grease through Outfall 004.

Mr. Sullivan stated that pH testing and iron screening using a non-approved analytical method had been increased. Elevated iron had been detected with screening analysis. No additional metals testing had been initiated. The composite sampler for Outfall 104 was observed. Solids were evident in the sampler, though it was early in the 24 hour sampling period.

Mr. Sullivan and Mr. Henry stated that other lines utilizing pickle liquor ceased operation to prevent the addition of iron into Final Treatment to allow the wastewater plant to settle the solids already present.

At approximately 1 PM CST, while onsite, Mr. Ream verbally advised US Steel to initiate additional metals testing. Mr. Ream followed up the verbal request with a written request sent in an email to Mr. Sullivan at 2:29 PM CST. By the time of the verbal request, the loss of solids had diminished dramatically.

Heat Exchanger #1 of Picking Line #1 was observed. New valves on the heat exchanger were apparent. Please refer to the attached photos. Mr. Sullivan stated that the pickle liquor from the heat exchanger followed a trench in the floor to the Dirty Industrial Water (DIW) to Final Treatment. At the time, the volume of the loss of pickle liquor was requested, but Mr. Sullivan stated he had to make calculations in order to provide an estimated volume.

Mr. Greinke recommended that US Steel make a public release to notify people of what was occurring. US Steel was also told to notify downstream users of the incident. The National Response Center (NRC) was notified by US Steel. Later that day, US Steel released a public statement concerning the loss of iron through Outfall 004 due to maintenance issues. The statement emphasized chromium was not being discharged.

Prior to the end of the inspection for that day, Mr. Sullivan stated they were looking into other possibilities for the problems at Final Treatment, but gave no indication that other potential sources had been identified. When asked if US Steel was expecting to identify any other issues, we were informed US Steel wanted to ensure there was not another source causing or contributing to the problem.

On May 10, 2019, Mr. Ream and I went to US Steel and met with Mr. Sullivan and Mr. Henry. We visually confirmed that the solids in Final Treatment and at Outfall 004 were back to normal operating levels.

Mr. Ream and I spoke with Mr. Sullivan and Mr. Henry regarding the incident. Mr. Sullivan stated they did not have the volume of pickle liquor lost yet. He was informed that data would be necessary. We asked why the NRC report and public notification only indicated a discharge of iron when it was stated that pickle liquor was believed to be the cause, and recommended an update of the NRC report to include the mention of pickle liquor. We were informed that the testing analysis had only indicated elevated iron discharging through Outfalls 104 and 004. When asked about US Steel's notification for downstream users, we were informed, in an email sent from Mr. Sullivan on May 10, 2019, that notification to the downstream users was unnecessary as the public statement from US Steel from May 9, 2019 was sufficient. It was, again, pointed out that the public release only referred to iron when we were informed it was pickle liquor, and appeared to

be misleading.

When asked about the maintenance work referenced in the public release from US Steel, Mr. Ream was informed that it was due to the work on the heat exchanger and maintenance of the west Final Treatment train.

On May 14, 2019, Mr. Greinke and Mr. Ream met with Mr. Sullivan at the facility. Final Treatment, which still had only the eastern train in operation, appeared to be operating at normal levels. We spoke about the required Five Day Letter, which Mr. Sullivan said IDEM would be receiving later that day. Upon arriving at the office, the Five Day Letter was available and reviewed. It stated the cause of the problems on May 9, 2019 were caused by problems with a failed seal of a sulfuric acid tank on the Tin Line. No mention was made of the pickle liquor from the heat exchanger we were shown on May 9, 2019.

On May 15, 2019, Mr. Greinke and I met with Mr. Sullivan. When asked why we were not informed about the Tin Line release, he stated that US Steel wanted to conclude its investigation to ensure correct information was gathered. It was pointed out that IDEM was given incorrect information early in the investigation and this was never corrected, in spite of numerous opportunities to do so.

Mr. Sullivan took us to the sulfuric acid tank of the Tin Line to observe the area now being cited as the cause of the May 9, 2019 incident. Mr. Sullivan stated that the seal utilized to keep most of the acid within the tank had failed. Prior to and during maintenance, the sulfuric acid bath, used to prepare the steel for the Tin Line, had partially drained into the sump. The material was pumped to Final Treatment. Some sulfuric acid is generally washed into Final Treatment as part of "Carry Over" during normal operations, but in this case, a more than typical amount was sent to Final Treatment. When asked how much volume was discharged, Mr. Sullivan stated he did not know.

Mr. Sullivan also stated that it was believed that 30 gallons of pickle liquor was lost into Final Treatment the same morning. It seems unlikely to have impacted the operations of the wastewater plant at that volume. If this volume had been stated on the first day of the incident, IDEM would have become aware that that the pickle liquor line may not have been the source of the problem.

On May 16, 2019, Mr. Greinke and Mr. Ream looked at Outfalls 002, 003, and 004 from the west bank of Burns Waterway. No problems were observed at the outfalls at the time of the inspection.

In an email on May 23, 2019, US Steel personnel made an estimation of 260 to 300 gallons of sulfuric acid was discharged on May 9, 2019. This estimate was generated from the increase in the iron observed over normal operations.

On May 30, 2019, a meeting took place at US Steel - Midwest between US Steel and IDEM personnel. Prior to the meeting, Outfalls 002, 003, and 004 were observed. Outfall 003 had mild foaming, but Outfalls 002 and 004 were clear and colorless. The western train of the wastewater treatment plant was off-line for maintenance.

1. The Receiving Stream and Effluent/Discharge were rated as unsatisfactory based on the following: 327 IAC 2-1.5-8 and Part I. B. of the permit

requires all waters to meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges: 1. That will settle to form putrescent or otherwise objectionable deposits; 2. That are in amounts sufficient to be unsightly or deleterious; 3. That produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance.

At the time of the inspection, on the morning of May 9, 2019, it was noted that the receiving stream near Outfall 004 was reddish-brown in color and appeared to contain solids. An oil sheen at Outfall 004 was also observed during the morning of May 9, 2019. US Steel Midwest personnel placed a boom at Outfall 004 at the request of David Greinke with the IDEM Emergency Response Section. Much of the solids, discoloration and sheening appeared to have dissipated by 2 PM on May 9, 2019.

Additionally, mild foaming was visible at Outfall 003 on May 30, 2019.

2. Operation and Maintenance were rated as unsatisfactory. Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment, which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8(9) must be maintained in good working order and efficiently operated at all times.

   During the problem with the sulfuric acid release from the Tin Line, the western train of Final Treatment was off-line for maintenance. Due to oil and grease in the bottom of the tank being cleaned, there were concerns by the operator regarding the loss of oil and grease to Burns Waterway if the western train was immediately put back into service. While this may be a valid reason to not put the line into service, there was insufficient capacity in the single operating train to remove the solids generated. The operational loss of available capacity likely caused or contributed to the loss of the solids to Burns Waterway and, thus, to Lake Michigan, which caused violations of the Narrative Water Quality Standards.

   pH screening conducted by US Steel indicated the low pH was likely raised to acceptable levels with a lime slurry treatment at the front of Final Treatment.

   Over the course of the inspection, it was learned on-site staff did not know the capacity of either treatment train of Final Treatment. Additionally, an SOP for pH calibration was not available for review.

3. Self-Monitoring was rated as unsatisfactory. The permit, Part II. A. 2., states, in part, that the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with the permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine

the nature and impact of the noncompliance.

On May 9, 2019, after the increase in solids being discharged was observed by US Steel personnel, US Steel personnel stated that they increased pH, TSS, and iron screening, used for operational purposes, rather than utilizing an EPA approved method, at Outfall 004. IDEM requested additional monitoring of Total Chromium, Hexavalent Chromium, Cadmium, Copper, Mercury, Lead, Nickel, Silver, Zinc, TSS, oil and grease, pH, and chlorides as, at the time, IDEM was working under the belief the problems with the plant were due to a discharge of pickle liquor. The samples were taken daily from the day of the incident and the next two days, but the accelerated sampling did not start until after the solids had subsided in the afternoon, which missed the majority of the event.

Due to this, the true extent of the event could not be determined. US Steel should have started sampling for any likely pollutants at the time the incident was first observed. The delay of waiting for IDEM to request additional sampling allowed the incident to continue, primarily untested, when grab samples should have been taken to determine the extent of the incident. To be clear, many of these parameters were sampled and analyzed as part of the NPDES permit required 24 hour composites, though these samples would also not indicate the pollutant concentrations at their potential peaks.

During the inspection on May 15, 2019, Mr. Greinke informed Mr. Sullivan that during any future events, samples should immediately be taken as grab samples in addition to any NPDES sampling events. A failure to accelerate sampling to determine the extent of a non-compliance event was also cited in a November 16 and November 17, 2017 inspection report.

4. The Records/Reports evaluation generated an unsatisfactory rating. 327 IAC 5-1-3(a)(5) and Part II. A. 5 of the permit states, in part, that the permittee must also provide any information reasonably requested by the Commissioner. On May 9, 2019, US Steel personnel were asked what the cause of the solids loss may have been.

   At the time, US Steel personnel were under the impression that the loss of pickle liquor from Heat Exchanger #1 of Pickling Line #1 was likely the source of the loss of solids. Later on May 9, 2019, US Steel personnel learned it was likely due to loss of sulfuric acid from the tin line, but withheld the data until the issuance of the five day letter on May 14, 2019 in spite of numerous opportunities to inform IDEM of the new information. Withholding pertinent information over the course of an investigation is an unacceptable practice.

5. Spill Notification was rated as unsatisfactory. 327 IAC 2-6.1-7(5) states, in part, that any person who operates, controls, or maintains any mode of transportation or facility from which a spill occurs shall, upon discovery of a reportable spill to the soil or surface waters of the state, exercise due diligence and document attempts to notify the nearest affected downstream water user located within ten (10) miles of the spill and in the state of

Indiana for spills to surface water that cause damage.

US Steel was notified that downstream users should be notified on May 9, 2019. A response received via email on May 10, 2019 stated that "downstream notification is unnecessary given USS made a public statement at 4:32 EDT". This public statement was not timely, was not directed to potentially affected downstream users, and did not detail of the actual potential problems at the site, including the potential release of what IDEM was initially informed was pickle liquor or what was eventually determined to be sulfuric acid.

This matter is being referred to the OWQ Enforcement Section for appropriate action. If formal action is initiated, you will be issued a Notice of Violation informing you of how to proceed in resolving this matter. Please direct any questions to Nicholas Ream at 219-730-1691 or by email to NReam@idem.IN.gov. A copy of the NPDES Industrial Facility Inspection Report is enclosed for your records.

Sincerely,

Rick Massoels, Deputy Director
Northwest Regional Office

Enclosure

NPDES Industrial Facility Inspection Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NPDES Permit Number:	Facility Type:		Facility Classification:	TEMPO AI ID
IN0000337	Industrial	Major	D	14435

Date(s) of Inspection: May 09, 2019 , May 10, 2019 , May 14, 2019 , May 15, 2019 , May 16, 2019 , May 30, 2019

Type of Inspection: Reconnaissance Inspection

Name and Location of Facility Inspected:			Receiving Waters/POTW:	Permit Expiration Date:
US Steel Corporation Midwest Plant 6300 US Highway 12 Portage	IN 46368	County: Porter	Portage-Burns Waterway to Lake Michigan	3/31/2021 Design Flow: NA

On Site Representative(s):

First Name	Last Name	Title	Email	Phone
Tim	Sullivan	Compliance Manager	tlsullivan@uss.com	219-763-5022
Mark	Henry	Operator	mhenry@uss.com	
Eric	Williams	Manager of Water Compliance	ewilliams@uss.com	
Alexis	Piscitielli	Director of Environmental Automotive Solutions	apiscitelli@uss.com	

Was a verbal summary of the inspection given to the on-site rep? **Yes**

Certified Operator:	Number:	Class:	Effective Date:	Expiration Date:	Email:
Mark Henry	20376	D	7-1-18	6-30-20	mhenry@uss.com

Cyber Security Contact

Name: Email:

Responsible Official:			
Mr. Tim Sullivan, Compliance Manager 6300 US Highway 12 Portage, Indiana 46368	Permittee: US Steel, Midwest Plant Email: tlsullivan@uss.com Phone: 219-763-5022 Fax:		Contacted? Yes

INSPECTION FINDINGS

- ○ Conditions evaluated were found to be satisfactory at the time of the inspection. (5)
- ○ Violations were discovered but corrected during the inspection. (4)
- ○ Potential problems were discovered or observed. (3)
- ○ Violations were discovered and require a submittal from you and/or a follow-up inspection by IDEM. (2)
- ◉ Violations were discovered and may subject you to an appropriate enforcement response. (1)

AREAS EVALUATED DURING INSPECTION

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated

U	Receiving Waters	S	Facility/Site	U	Self-Monitoring	N	Compliance Schedules
U	Effluent/Discharge	U	Operation	N	Flow Measurement		
S	Permit	U	Maintenance	N	Laboratory	N	Effluent Limits Compliance
		N	Sludge	U	Records/Reports	U	Other: Spill Notification

DETAILED AREA EVALUATIONS

On May 9, 2019, at 9:48 AM CST, I received a telephone call from Mr. Tim Sullivan, the Compliance Manager with US Steel - Midwest, stating that the effluent from Outfall 004 was discolored and a thin sheen was present in the receiving stream. At the time of the telephone call, US Steel personnel stated that they believed the problem was due to pickle liquor, which was released from Heat Exchanger #1 of Pickling Line #1 to the Final Wastewater Treatment Plant. Prior to entering the facility, Mr. David Greinke and I viewed Outfalls 002, 003, and 004 from the west side of Burns Waterway. No problems were observed at Outfalls 002 and 003. The Outfall 004 discharge appeared turbid and discolored and contained a visible sheen.

After entering the facility, Mr. Greinke and I met with Mr. Mark Henry and Mr. Tim Sullivan. Mr. Greinke recommended the placement of an oil absorbent boom to capture the sheen in Burns Waterway. Orange solids were overflowing the weirs of the east treatment train of the Final Treatment WWTP. The west treatment train was off-line for routine maintenance. When asked why the west train was not brought on-line due to the loss of solids, Mr. Henry stated that a thick layer of oil and grease was being cleaned from the off-line train and he had concerns that starting the train would result in washing oil and grease through Outfall 004.

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At approximately 1 PM CST, while onsite, I verbally advised US Steel to initiate additional metals testing. I followed up the verbal request with a written request sent in an email to Mr. Sullivan at 2:29 PM CST. By the time of the verbal request, the loss of solids had diminished dramatically.

Heat Exchanger #1 of Picking Line #1 was observed. New valves on the heat exchanger were apparent. Please refer to the attached photos. Mr. Sullivan stated that the pickle liquor from the heat exchanger followed a trench in the floor to the Dirty Industrial Water (DIW) to Final Treatment. At the time, the volume of the loss of pickle liquor was requested, but Mr. Sullivan stated he had to make calculations in order to provide an estimated volume.

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Prior to the end of the inspection for that day, Mr. Sullivan stated they were looking into other possibilities for the problems at Final Treatment, but gave no indication that other potential sources had been identified. When asked if US Steel was expecting to identify any other issues, we were informed US Steel wanted to ensure there was not another source causing or contributing to the problem.

On May 10, 2019, Mr. Rick Massoels, the IDEM Deputy Director of the Northwest Regional Office, and I went to US Steel and met with Mr. Sullivan and Mr. Henry. We visually confirmed that the solids in Final Treatment and at Outfall 004 were back to normal operating levels.

Mr. Massoels and I spoke with Mr. Sullivan and Mr. Henry regarding the incident. Mr. Sullivan stated they did not have the volume of pickle liquor lost yet. He was informed that data would be necessary. We asked why the NRC report and public notification only indicated a discharge of iron when it was stated that pickle liquor was believed to be the cause, and recommended an update of the NRC report to include the mention of pickle liquor. We were informed that the testing analysis had only indicated elevated iron discharging through Outfalls 104 and 004. When asked about US Steel's notification for downstream users, we were informed, in an email sent from Mr. Sullivan on May 10, 2019, that notification to the downstream users was unnecessary as the public statement from US Steel from May 9, 2019 was sufficient. It was, again, pointed out that the public release only referred to iron when we were informed it was pickle liquor, and appeared to be misleading.

When asked about the maintenance work referenced in the public release from US Steel, I was informed that it was due to the work on the heat exchanger and maintenance of the west Final Treatment train.

On May 14, 2019, Mr. Greinke and I met with Mr. Sullivan at the facility. Final Treatment, which still had only the eastern train in operation, appeared to be operating at normal levels. We spoke about the required Five Day Letter, which Mr. Sullivan said IDEM would be receiving later that day. Upon arriving at the office, the Five Day Letter was available and reviewed. It stated the cause of the problems on May 9, 2019 were caused by problems with a failed seal of a sulfuric acid tank on the Tin Line. No mention was made of the pickle liquor from the heat exchanger we were shown on May 9, 2019.

On May 15, 2019, Mr. Greinke and I met with Mr. Sullivan. When asked why we were not informed about the Tin Line release, he stated that US Steel wanted to conclude its investigation to ensure correct information was gathered. It was pointed out that IDEM was given incorrect information early in the investigation and this was never corrected, in spite of numerous opportunities to do so.

Mr. Sullivan took us to the sulfuric acid tank of the Tin Line to observe the area now being cited as the cause of the May 9, 2019 incident. Mr. Sullivan stated that the seal utilized to keep most of the acid within the tank had failed. Prior to and during maintenance, the sulfuric acid bath, used to prepare the steel for the Tin Line, had partially drained into the sump. The material was pumped to Final Treatment. Some sulfuric acid is generally washed into Final Treatment as part of "Carry Over" during normal operations, but in this case, a more than typical amount was sent to Final Treatment. When asked how much volume was discharged, Mr. Sullivan stated he did not know.

Mr. Sullivan also stated that it was believed that 30 gallons of pickle liquor was lost into Final Treatment the same morning. It was unlikely to have impacted the operations of the wastewater plant at that volume. If this volume had been stated on the first day of the incident, IDEM would have become aware that that the pickle liquor line may not have been the source of the problem.

On May 16, 2019, Mr. Greinke and I looked at Outfalls 002, 003, and 004 from the west bank of Burns Waterway. No problems were observed at the outfalls at the time of the inspection.

In an email on May 23, 2019, US Steel personnel made an estimation of 260 to 300 gallons of sulfuric acid was discharged on May 9, 2019. This estimate was generated from the increase in the iron observed over normal operations.

On May 30, 2019, a meeting took place at US Steel - Midwest between US Steel and IDEM personnel. Prior to the meeting, Outfalls 002, 003, and 004 were observed. Outfall 003 had mild foaming, but Outfalls 002 and 004 were clear and colorless. The western train of the wastewater treatment plant was off-line for maintenance.

Receiving Waters:

Comments:

The Receiving Stream was rated as **unsatisfactory** based on the following: 327 IAC 2-1.5-8 and Part I. B. of the permit requires all waters to meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges: 1. That will settle to form putrescent or otherwise objectionable deposits; 2. That are in amounts sufficient to be unsightly or deleterious; 3. That produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance.

At the time of the inspection, on the morning of May 9, 2019, it was noted that the receiving stream near Outfall 004 was reddish-brown in color and appeared to contain solids. An oil sheen at Outfall 004 was also observed during the morning of May 9, 2019. US Steel Midwest personnel placed a boom at Outfall 004 at the request of David Greinke with the IDEM Emergency Response Section. Much of the solids, discoloration and sheening appeared to have dissipated by 2 PM on May 9, 2019.

Additionally, mild foaming was visible at Outfall 003 on May 30, 2019.

Effluent/Discharge:

Comments:

327 IAC 2-1.5-8) and Part I. B of the permit were already cited under Receiving Stream for reddish-brown discharges at Outfall 004 on the morning of May 9, 2019. Please refer to the Receiving Stream category for more information.

Outfalls 002 and 003 were observed on May 9, 2019, May 10, 2019, and May 16, 2019. The effluent at these outfalls were clear and free of color at the time of the inspection.

Outfalls 002, 003, and 004 were also observed on May 30, 2019. Mild foaming was observed at Outfall 003.

Permit:

Comments:

The facility has a valid permit.

Facility/Site:

Comments:

The facility grounds are well maintained.

Operation:

Comments:

Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment, which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8(9) must be maintained in good working order and efficiently operated at all times.

During the problem with the sulfuric acid release from the Tin Line, the western train of Final Treatment was off-line for maintenance. Due to oil and grease in the bottom of the tank being cleaned, there were concerns by the operator regarding the loss of oil and grease to Burns Waterway if the western train was immediately put back into service. While this may be a valid reason to not put the line into service, there was insufficient capacity in the single operating train to remove the solids generated. The operational loss of available capacity likely caused or contributed to the loss of the solids to Burns Waterway and, thus, to Lake Michigan, which caused violations of the Narrative Water Quality Standards.

pH screening conducted by US Steel indicated the low pH was likely raised to acceptable levels with a lime slurry treatment at the front of Final Treatment.

Over the course of the inspection, it was learned on-site staff did not know the capacity of either treatment train of Final Treatment. Additionally, an SOP for pH calibration was not available for review.

Maintenance:

Comments:

Maintenance was rated as **unsatisfactory**. Please refer to Operations for more information.

Self-Monitoring:

Comments:

Self-Monitoring was rated as **unsatisfactory**. The permit, Part II. A. 2., states, in part, that the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with the permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

On May 9, 2019, after the increase in solids being discharged was observed by US Steel personnel, US Steel personnel stated that they increased pH, TSS, and iron screening, used for operational purposes, rather than utilizing an EPA approved method, at Outfall 004. IDEM requested additional monitoring of Total Chromium, Hexavalent Chromium, Cadmium, Copper, Mercury, Lead, Nickel, Silver, Zinc, TSS, oil and grease, pH, and chlorides as, at the time, IDEM was working under the belief the problems with the plant were due to a discharge of pickle liquor. The samples were taken daily from the day of the incident and the next two days, but the accelerated sampling did not start until after the solids had subsided in the afternoon, which missed the majority of the event. Due to this, the true extent of the event could not be determined. US Steel should have started sampling for any likely pollutants at the time the incident was first observed. The delay of waiting for IDEM to request additional sampling allowed the incident to continue, primarily untested, when grab samples should have been taken to determine the extent of the incident. To be clear, many of these parameters were sampled and analyzed as part of the NPDES permit required 24 hour composites, though these samples would also not indicate the pollutant concentrations at their potential peaks.

During the inspection on May 15, 2019, Mr. Greinke informed Mr. Sullivan that during any future events, samples should immediately be taken as grab samples in addition to any NPDES sampling events. A failure to accelerate sampling to determine the extent of a non-compliance event was also cited in a November 16 and November 17, 2017 inspection report.

Records/Reports:

The following records/reports were reviewed:

Comments:

The Records/Reports evaluation generated an **unsatisfactory** rating. 327 IAC 5-1-3(a)(5) and Part II. A. 5 of the permit states, in part, that the permittee must also provide any information reasonably requested by the Commissioner. On May 9, 2019, US Steel personnel were asked what the cause of the solids loss may have been. At the time, US Steel personnel were under the impression that the loss of pickle liquor from Heat Exchanger #1 of Pickling Line #1 was likely the source of the loss of solids. Later on May 9, 2019, US Steel personnel learned it was likely due to loss of sulfuric acid from the tin line, but withheld the data until the issuance of the five day letter on May 14, 2019 in spite of numerous opportunities to inform IDEM of the new information. **Withholding pertinent information over the course of an investigation is an unacceptable practice.**

Effluent Limits Compliance:

No 1. Were DMRs reviewed as part of the inspection?

Comments:

Other:

Spill Notification

Comments:

Other: Spill Notification was rated as **unsatisfactory**. 327 IAC 2-6.1-7(5) states, in part, that any person who operates, controls, or maintains any mode of transportation or facility from which a spill occurs shall, upon discovery of a reportable spill to the soil or surface waters of the state, exercise due diligence and document attempts to notify the nearest affected downstream water user located within ten (10) miles of the spill and in the state of Indiana for spills to surface water that cause damage. US Steel was notified that downstream users should be notified on May 9, 2019. A response received via email on May 10, 2019 stated that "downstream notification is unnecessary given USS made a public statement at 4:32 EDT". This public statement was not timely, was not directed to potentially affected downstream users, and did not detail of the actual potential problems at the site, including the potential release of what IDEM was initially informed was pickle liquor or what was eventually determined to be sulfuric acid.

IDEM REPRESENTATIVE

Inspector Name:	Email:	Phone Number:
Nicholas Ream	NReam@idem.IN.gov	219-730-1691

Other staff participating in the inspection:

Name(s)	Phone Number(s)
David Greinke - IDEM - Emergency Respon...	219-730-4035
Bob Lugar - Deputy Assistant Commissione...	
Mark Stanifer - OWQ Compliance Branch C...	
Hala Kuss - Director of the Northwest Regio...	
Richard Massoels - Deputy Director	

IDEM MANAGER REVIEW

IDEM Manager:	Date:
Rick Massoels	6/6/2019

Inspection Photographs

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 11:39 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
West and down view of Outfall 004 into Burns Waterway. The effluent was brownish-red and turbid. Light sheening was visible.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 11:41 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
West and down view of Outfall 004 into Burns Waterway. The effluent was brownish-orange and turbid. Light sheening was visible.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 11:48 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
East view of the clarifiers of the east treatment train of Final Treatment. Brownish-orange solids were observed overflowing the weirs.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 11:48 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
Southern view of the Final Treatment - West Train, which was down for routine maintenance.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 11:51 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
Southwest and down view of the oil and grease being cleaned out of the west treatment train of Final Treatment.

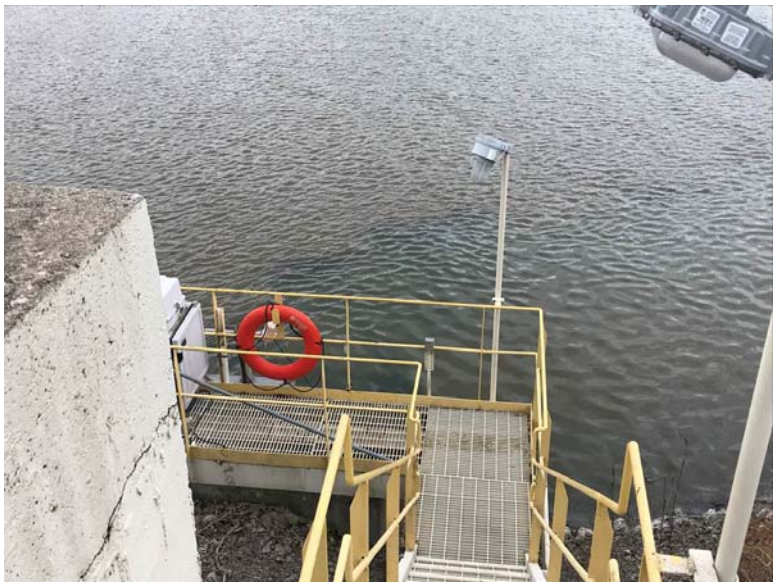
Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 12:12 PM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
A boom was placed at Outfall 004 at the request of
David Greinke. Corrections were made to the boom shortly after the picture was taken.



Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 2:56 AM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
West and down view of Outfall 004. The loss of solids had diminished dramatically by approximately 2:00 PM CST.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 3:00 PM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
East view of the clarifiers of the east treatment train of Final Treatment. The loss of solids had diminished dramatically by approximately 2:00 PM CST.

Facility:
US Steel Corporation Midwest Plant

Photographer:
Nicholas Ream

Date: 05/09/2019 Time: 3:31 PM

Others Present:
David Greinke, Tim Sullivan, Mark Henry

Location/Description:
West view of Heat Exchanger #1 of Pickling Line #1. New valves were in place on the heat exchanger.